CLAIMS

1.   Method for reducing congestion in a network layer (16) of a machine (15) when it accumulates in a queue (20) datagrams (12) to be transmitted through a network (18), characterized in that it comprises:

    - a first step (29) that measures a fullness level of said queue (20), in order to generate a signal (NIV) based on said fullness level;

    - a second step (30) that detects any datagram received from said network (18), wherein a field (28) of a transport layer (6) contains a received window value (VFR);

    - a third step (31) that generates a sent window value (VFE) based on said signal (NIV) in order to process the detected datagram by entering said value (VFE) into it in said field (28), the sent window value (VFE) being at least equal to a remaining window value (VFER) representing, for each connection established, the number of bytes transmittable at the time it is generated;

    - a fourth step (32) that routes the processed datagram through a network (17) to a transport layer (4), which limits its send rate based on the sent window value (VFE).

2.   Method according to claim 1, characterized in that the signal (NIV) is generated by means of a binary function that results in an alarm state when the fullness level of the queue (20) exceeds a first threshold.

3.   Method according to claim 1, characterized in that the signal (NIV) is generated by means of a polynomial function proportional to the fullness level and inversely proportional to the capacity of the queue (20).

4.   Method according to claim 2, characterized in that the sent window value (VFE) is generated by limiting the received window value (VFR) when the signal (NIV) is in the alarm state.

5.   Device for reducing congestion in a network layer (16) of a machine (15) when it accumulates, in a queue (20) in a memory of said machine (15),

3   datagrams (12) to be transmitted through a network (18), characterized in that it

4   comprises means (33) in said memory for detecting any datagram received from said

5   network (18) wherein a field (28) of a transport layer (6) contains a received window

6   value (VFR), and for entering a sent window value (VFE) into it based on a fullness

7   level (26) of said queue (20) before routing the detected datagram through a network

8   (17) to a transport layer (4), which limits its send rate based on the sent window value

9   (VFE), the sent window value (VFE) being at least equal to a remaining window

10   value (VFER) representing, for each connection established, the number of bytes

11   transmittable at the time it is generated.